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In re application of: Croteau *et al.*

Application No.: _____

Filed: Herewith

Confirmation No.: _____

For: P450 OXYGENASES AND METHODS OF
USE

Examiner: _____

Art Unit: _____

Attorney Reference No.: 4630-66380-05

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INFORMATION DISCLOSURE STATEMENT

Listed on the accompanying form PTO-1449 are several English-language documents. Applicants respectfully request that these documents be listed as references cited on the issued patent.

Copies of foreign patents, foreign patent applications, and other non-patent documents accompany this Information Disclosure Statement ("IDS"). Copies of United States patents, United States published patent applications, and unpublished U.S. applications otherwise available on PAIR do not have to be provided (37 C.F.R. 1.98(a)(2)(ii) and Official Gazette Notice on October 19, 2004 (1287 OG 163)). Applicants will provide copies of such U.S. patents or U.S. patent applications upon request.

Applicants filed this IDS within three months of the date of entry of the national stage in an international application as set forth in 37 C.F.R. 1.491. As a result, no fee should be required to file this IDS; however, if the Commissioner determines that a fee is required, please charge any such fee to the deposit account referenced on the accompanying transmittal letter.

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The filing of this IDS shall not be construed to be an admission that the information cited in the statement is, or is considered to be, prior art or otherwise material to patentability as defined in 37 C.F.R. §1.56.

Respectfully submitted,

KLARQUIST SPARKMAN, LLP

By Debra Gordon
Debra A. Gordon, Ph.D.
Registration No. 54,128

One World Trade Center, Suite 1600
121 S.W. Salmon Street
Portland, Oregon 97204
Telephone: (503) 226-7391
Facsimile: (503) 228-9446

cc: Docketing

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket Number	4630-66380-05
	Application Number	To be assigned
	Filed	Herewith
	First Named Inventor	Rodney B. Croteau
	Art Unit	To be assigned
	Examiner Name	To be assigned

U.S. PATENT DOCUMENTS

Examiner's Initials*	Cite No. (optional)	Number	Publication Date	Name of Applicant or Patentee
		6,043,072	28 Mar 2000	Croteau et al.

FOREIGN PATENT DOCUMENTS

Examiner's Initials*	Cite No. (optional)	Country	Number	Publication Date	Name of Applicant or Patentee
		WIPO/PCT	WO 98/40470	17 Sept 1998	Novartis AG and Royal Veterinary and Agriculture University

OTHER DOCUMENTS

	Cabello-Hurtado et al., "Cloning, Expression in Yeast, and Functional Characterization of CYP81B1, a Plant Cytochrome P450 That Catalyzes In-chain Hydroxylation of Fatty Acid," <i>J. Biol. Chem.</i> , 273(13):7260-7267, 1998
	Chau and Croteau, "Molecular cloning and characterization of a cytochrome P450 taxoid 2 α -hydroxylase involved in Taxol biosynthesis," <i>Arch. Biochem. Biophys.</i> , 427:48-57, 2004
	Chau et al., "Taxol Biosynthesis: Molecular Cloning and Characterization of a Cytochrome P450 Taxoid 7 β -Hydroxylase," <i>Chem. Biol.</i> , 11:663-672, 2004
	Chau, "Molecular Cloning and Characterization of Three Enzymes Involved in Taxol/Taxoid Biosynthesis: Taxoid 2 α -Hydroxylase, Taxoid 7 β -Hydroxylase, and Taxoid 5 α -O-Acetyltransferase," Ph.D. Dissertation, Pullman, WA:Washington State University, May 2004
	Eisenreich et al., "Multiple Oxygenase Reactions in the Biosynthesis of Taxoids," <i>J. Am. Chem. Soc.</i> , 120:9694-9695, 1998
	Fischer et al., "Towards molecular farming in the future: using plant-cell-suspension cultures as bioreactors," <i>Biotechnol. Appl. Biochem.</i> , 30:109-112, 1999
	Hefner et al., "Cytochrome P450-catalyzed hydroxylation of taxa-4(5),11(12)-diene to taxa-4(20),11(12)-dien-5 α -ol: the first oxygenation step in taxol biosynthesis," <i>Chem. Biol.</i> , 3:479-489, 1996

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* Examiner: Initial if reference considered, whether or not in conformance with MPEP 609. Draw line through cite if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Attorney Docket Number	4630-66380-05
		Application Number	10/565255 To be assigned
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		First Named Inventor	Rodney B. Croteau
		Art Unit	To be assigned
		Examiner Name	To be assigned

Examiner's Initials*	Cite No. (optional)	OTHER DOCUMENTS
		Hefner et al., "Cloning and Functional Expression of a cDNA Encoding Geranylgeranyl Diphosphate Synthase from <i>Taxus canadensis</i> and Assessment of the Role of this Prenyltransferase in Cells Induced for Taxol Production," <i>Arch. Biochem. Biophys.</i> , 360(1):62-74, 1998
		Jennewein et al., "Taxol biosynthesis: Taxane 13 α -hydroxylase is a cytochrome P450-dependent monooxygenase," <i>Proc. Natl. Acad. Sci. USA</i> , 98(24):13595-13600, 2001
		Jennewein et al., "Taxoid metabolism: Taxoid 14beta-hydroxylase is a cytochrome P450-dependent monooxygenase," <i>Arch. Biochem. Biophys.</i> , 413(2):262-270, 2003 (Abstract)
		Jennewein et al., "Cytochrome p450 taxadiene 5alpha-hydroxylase, a mechanistically unusual monooxygenase catalyzing the first oxygenation step of taxol biosynthesis," <i>Chem Biol.</i> , 11(3):378-387, 2004
		Jennewein et al., "Random sequencing of an induced <i>Taxus</i> cell cDNA library for identification of clones involved in Taxol biosynthesis," <i>Proc. Natl. Acad. Sci. USA</i> , 101(24):9149-9154, 2004
		Nielson et al., "Cytochrome P450s in Plants," In: <i>Cytochrome P450: Structure, Mechanism, and Biochemistry</i> , Chap. 12, 3rd ed., ed. by Ortiz de Montellano, New York, NY:Kluwer Academic/Plenum Publishers, 2005
		Pauli and Kutchan., "Molecular cloning and functional heterologous expression of two alleles encoding (S)-N-methylcoclaurine 3'-hydroxylase (CYP80B1), a new methyl jasmonate-inducible cytochrome P-450-dependent mono-oxygenase of benzylisoquinoline alkaloid biosynthesis," <i>Plant J.</i> , 13(6):793-801, 1998
		Schoendorf et al., "Molecular cloning of a cytochrome P450 taxane 10 β -hydroxylase cDNA from <i>Taxus</i> and functional expression in yeast," <i>Proc. Natl. Acad. Sci. USA</i> , 98(4):1501-1506, 2001
		Schopfer and Ebel, "Identification of elicitor-induced cytochrome P450s of soybean (<i>Glycine max</i> L.) using differential display of mRNA," <i>Mol. Gen. Genet.</i> , 258:315-322, 1998
		Wildung et al., "A cDNA Clone for Taxadiene Synthase, the Diterpene Cyclase That Catalyzes the Committed Step of Taxol Biosynthesis," <i>J. Biol. Chem.</i> , 271(16):9201-9204, 1996

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